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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,614	01/23/2004	Carsten Rosenow	3394.2	7275
22886	7590	08/22/2007		
AFFYMETRIX, INC ATTN: CHIEF IP COUNSEL, LEGAL DEPT. 3420 CENTRAL EXPRESSWAY SANTA CLARA, CA 95051			EXAMINER STRZELECKA, TERESA E	
			ART UNIT 1637	PAPER NUMBER
			MAIL DATE 08/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/763,614	Applicant(s) ROSENOW, CARSTEN	
	Examiner Teresa E. Strzelecka	Art Unit 1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 9-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/19/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (claims 1-12) in the reply filed on July 26, 2006 is acknowledged.
2. Claims 13-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 26, 2006.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on April 19, 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

4. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

The hyperlinks are present on page 24, [0073] and page 26, [0074].

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

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application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Shoemaker et al. (U.S. Patent No. 6,713,257 B2; cited in the IDS).

Regarding claim 1, Shoemaker et al. teach a method of identifying transcribed genomic regions by:

providing a nucleic acid sample comprising transcripts or nucleic acids derived from transcripts from the genome (col. 7, lines 40-54; col. 8, lines 19-31; col. 15, lines 47-67);

hybridizing the nucleic acid sample with a plurality of nucleic acid probes, wherein the probes are designed to interrogate potential transcripts from both strands of the genomic DNA (col. 7, lines 40-54; col. 8, lines 19-31; col. 8, lines 43-67; col. 9, 10; col. 11, lines 1-15 and 60-67; col. 12, lines 1-34; Fig. 1; Fig. 7; col. 19, lines 5-50);

analyzing hybridization signals to detect the transcribed region (col. 18, lines 13-67; col. 19-26).

Regarding claim 2, Shoemaker et al. teach probes interrogating intergenic and intronic regions of the genome (col. 11, lines 40-67; col. 12, lines 1-34; Fig. 1).

Regarding claims 3 and 4, Shoemaker et al. teach probes densities of 150 to 500,000 probes per cm² (col. 9, lines 46-67; col. 10, lines 1-3), anticipating the limitations of claims 3 and 4.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoemaker et al. (U.S. Patent No. 6,713,257 B2; cited in the IDS) and Daniels et al. (Science, vol. 257, pp. 771-778, 1992).

A) Regarding claim 5, Shoemaker et al. teach a method of identifying transcribed genomic regions by:

providing a nucleic acid sample comprising transcripts or nucleic acids derived from transcripts from the genome (col. 7, lines 40-54; col. 8, lines 19-31; col. 15, lines 47-67);

hybridizing the nucleic acid sample with a plurality of nucleic acid probes, wherein the probes are designed to interrogate potential transcripts from both strands of the genomic DNA (col. 7, lines 40-54; col. 8, lines 19-31; col. 8, lines 43-67; col. 9, 10; col. 11, lines 1-15 and 60-67; col. 12, lines 1-34; Fig. 1; Fig. 7; col. 19, lines 5-50). Shoemaker et al. teach interrogating genomic sequences of prokaryotes (col. 10, lines 20-23).

Regarding claim 6, Shoemaker et al. teach oligonucleotides immobilized on a substrate (col. 8, lines 43-67; col. 9, lines 1-45).

Regarding claims 7 and 8, Shoemaker et al. teach probes densities of 150 to 500,000 probes per cm^2 (col. 9, lines 46-67; col. 10, lines 1-3), anticipating the limitations of claims 7 and 8.

B) Shoemaker et al. do not teach classifying the region as potential operon element if both flanking ORFs are expressed and in the region is transcribed off the same DNA strand as the flanking ORFs.

C) Daniels et al. teach a genome of E. coli with assigned ORFs and potential operons, as well as assignment of sequences as potential operons based on their proximity to known ORFs and transcription in the same direction (Fig. 1; page 771, last two paragraphs; page 773, first paragraph; page 776).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to have used the criteria of Daniels et al. for predicting potential operons of Shoemaker et al., since the criteria presented by Daniels et al. are based on experimentally-determined gene transcription in procaryotes, therefore providing an ultimate test of the operon's existence.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1, 3 and 4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8-13 of U.S. Patent No. 6,670,122 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 8-13 are species of claims 1, 3 and 4 of the instant application, therefore they anticipate the instant claims.

Specifically, claim 10 of U.S. Patent No. 6,670,122 is drawn to a method of detecting transcribed regions of a genome, comprising obtaining a sample comprising transcripts transcribed from the genome; synthesizing single stranded cDNAs complementary with the transcripts, wherein the synthesis of second strand cDNA is inhibited; and hybridizing the cDNAs or nucleic acids

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derived from the cDNAs with a nucleic acid probe array, wherein the nucleic acid probe array has probes targeting both strands of the genomic DNA in interested regions, wherein the synthesis of the second strand cDNA is inhibited by the presence of actinomycin, wherein the cDNAs or nucleic acids derived from cDNAs are labeled and wherein the nucleic acid probe array is an oligonucleotide probe array. The dependent claims 12 and 13 anticipate claims 3 and 4 of the instant application.

11. No references were found teaching or suggesting claims 9-12. Claims 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa E. Strzelecka whose telephone number is (571) 272-0789. The examiner can normally be reached on M-F (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Teresa E Strzelecka
Primary Examiner
Art Unit 1637

Teresa Strzelecka